

REMARKS

In the Final Office Action under reply, claims 19-24, all the claims present in this application, were rejected as being obvious in view of the previously cited patent to Robinson (U.S. Patent 5,428,579), in combination with the newly cited patent to Komatsu (U.S. Patent 5,802,551). [As before, the patent to Jigour (U.S. Patent 5,815,436) was relied upon to reject claims 21 and 24.] The Examiner asserts that Robinson describes a memory card having a flash memory, a write-inhibit switch, an interface for communicating data between the memory card and external apparatus, and a controller that handles write instructions and status information. Apparently, the Examiner implicitly agreed with Applicants' argument submitted November 14, 2000 that Robinson does not describe the feature of having the host first send a read status instruction to the card in order to read the contents of write protection register 457; and then send a write instruction to the card *only if* the write protection register is not set. It was Applicants' position that Robinson failed to suggest to one of ordinary skill in the art the feature of receiving from the external apparatus data to be written to the flash memory "only if the state of said switch that is sent to said external apparatus [in response to a read status instruction received from the external apparatus] is not said state which inhibits writing" as recited in claim 19.

The Examiner no longer contends that Robinson teaches the aforesaid feature. Rather, the Examiner now relies on Komatsu for this teaching. It is respectfully submitted that Komatsu does not cure the noted deficiencies of Robinson. Hence, even if Komatsu is combined with Robinson, the resultant combination still does not suggest Applicants' claimed control means that responds to a read status instruction transmitted from the external apparatus to send the state of the write-inhibit switch, and then, only if the state of that switch is not the inhibit state, receives a write instruction signal and data to be written.

Komatsu describes a memory card having a controller 21 (Fig. 1) that receives data from a host. This data first is written to SRAM 23 and then, if there is room in the flash memory for this new data, it is transferred from the SRAM to an available sector in a block (see col. 3, lines 43-55 and col. 5, lines 3-5 and 25-47). If there is no room, the flash memory undergoes a "clean up" operation in which old data that no longer is needed is evacuated from a block. Then, the new data is written into that cleaned-up block (col. 5, line 48 to col. 7, line 31). Figs. 5-9 of Komatsu illustrate the flow chart that represents the steps that are executed to write, evacuate and clean up a flash memory. During the clean up operation, data is transferred from a block to SRAM 23 and then is rewritten into the flash memory. Before the transferred data is rewritten,

"...go to the step S30. At the step S30, a search for a write-enable sector is started from the sector indicated by Write Pointer. Then, at a step S31, it is checked whether there is a write-enable sector. If there is not, error handling must be carried out. If there is a write-enable sector, go to a step S32, where the data stored in the SRAM 23 is moved to the flash memory" (col. 6, lines 25-31).

Interestingly, there is no description in Komatsu as to how a write-enable sector is indicated or how Komatsu checks "whether there is a write-enable sector." That is, there is no description or suggestion as to how step 31 is carried out. One thing is clear, however: Komatsu does not describe or suggest the use of a write-inhibit switch whose state is indicative of a "write-enable sector."

Once a block is cleaned up, or otherwise prepared to have new data written therein, steps S46 to S53 (Fig. 9) are carried out. The Examiner referred to these steps at page 3, third full paragraph, in his Final Rejection. Komatsu describes the relevant steps at col. 7, lines 14-19:

"Then, at the step S46, a search for a write-enable sector is started from the sector indicated by Write Pointer. At a step S47, a check is made whether there is a write-enable sector. If there is, go to a step S48, where the data stored in the SRAM 23 is moved to the flash memory. At a step S49, it is checked if an error occurred in writing the data."

But, Komatsu does not describe how this write-enable sector is checked or what condition creates the write-enable sector. There is no description of how step S47 is carried out. Komatsu does not even remotely suggest that a write-enable sector is created or that a write-enable sector is indicated if a write-inhibit switch is actuated. Nevertheless, the Examiner contends that it would be obvious to one of ordinary skill in the art to establish a write-enable sector if a write-inhibit switch is not operated. The reasoning behind this is:

"It would have been obvious to one of ordinary skill to add such a feature of sending data when if the card is detected to be write-enabled, as it would allow the data to be sent to the card to remain in a secure position, to be only transferred if a write-enabling switch or signal is detected. This would prevent data from being unnecessarily transferred from an external device to the card, only to find the write-protect in effect, and have to travel back to the external device" (page 3, third paragraph of the Final Office Action)."

That is, the Examiner has adopted Applicants' argument, as set out in the Amendment filed November 14, 2000 (see page 4, last line through page 5, line 5 of the Amendment), as the basis for concluding that Komatsu, although notably silent, is suggestive of the feature of transferring data from the host to the memory card *only if* the state of the write-inhibit switch is sent to the host, and that state permits writing.

It is respectfully submitted that the Examiner has used Applicants' teaching to infer from Komatsu a feature that Komatsu simply does not describe. Komatsu does not describe a write-inhibit switch. Komatsu does not describe sending the state of that write-inhibit switch to

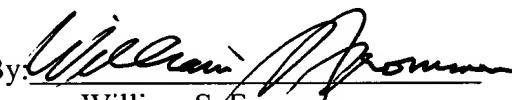
the host. Komatsu does not describe sending data from the host to the memory card only if the state of that switch, as sent to the host, permits writing. While Robinson does describe a write-inhibit switch, there is no teaching in Robinson that the state of that switch should be sent to the host and then the host will transfer data to the memory card only if the sent state permits writing. Why, then, would it be obvious to modify Robinson in a manner not suggested by Robinson or by Komatsu? Why is it contended that Komatsu's step of "check[ing] ... whether there is a write-enable sector" is suggestive to one of ordinary skill in the art that this is inherently the same as "sending to said external apparatus ... the state of said switch in response to a read status instruction ... and... receiving from said external apparatus data to be written ... only if the state of said switch that is sent ... is not said state which inhibits writing?" Simply stated, neither Robinson nor Komatsu, even when combined, teaches the aforequoted feature of claim 19 (and also claim 22). It is impermissible hindsight to conclude that one of ordinary skill, after reading and understanding Komatsu, and recognizing that Komatsu does not describe how a check should be made whether there is a write-enable sector, would be motivated to modify Robinson to the extent that, before any data is transmitted to Robinson's memory card from the host, the host first must receive an indication of the state of Robinson's write-inhibit switch.

Therefore, since the combination of Robinson and Komatsu fails to suggest the feature of "sending to said external apparatus ... the state of said switch in response to a read status instruction ... and... receiving from said external apparatus data to be written ... only if the state of said switch that is sent ... is not said state which inhibits writing;" it follows that the teachings of these patents does not render claims 19 and 22 obvious. Accordingly, it is respectfully requested that the rejection of these claims be withdrawn.

Since claims 20, 21, 23 and 24 depend from claim 19 or claim 22 and, therefore, inherit the limitations recited in the independent claims, it follows that these dependent claims likewise should be allowed.

The allowance of claims 19-24, all the claims remaining in this application, is respectfully solicited.

Respectfully submitted,
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